

Patent Strategy for Emerging Companies

Enterprise Works

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ADDING VALUE TO INNOVATION

▪ alexandria ▪ chicago ▪ minneapolis ▪ champaign

Outline

Business and Patent Portfolio Goals

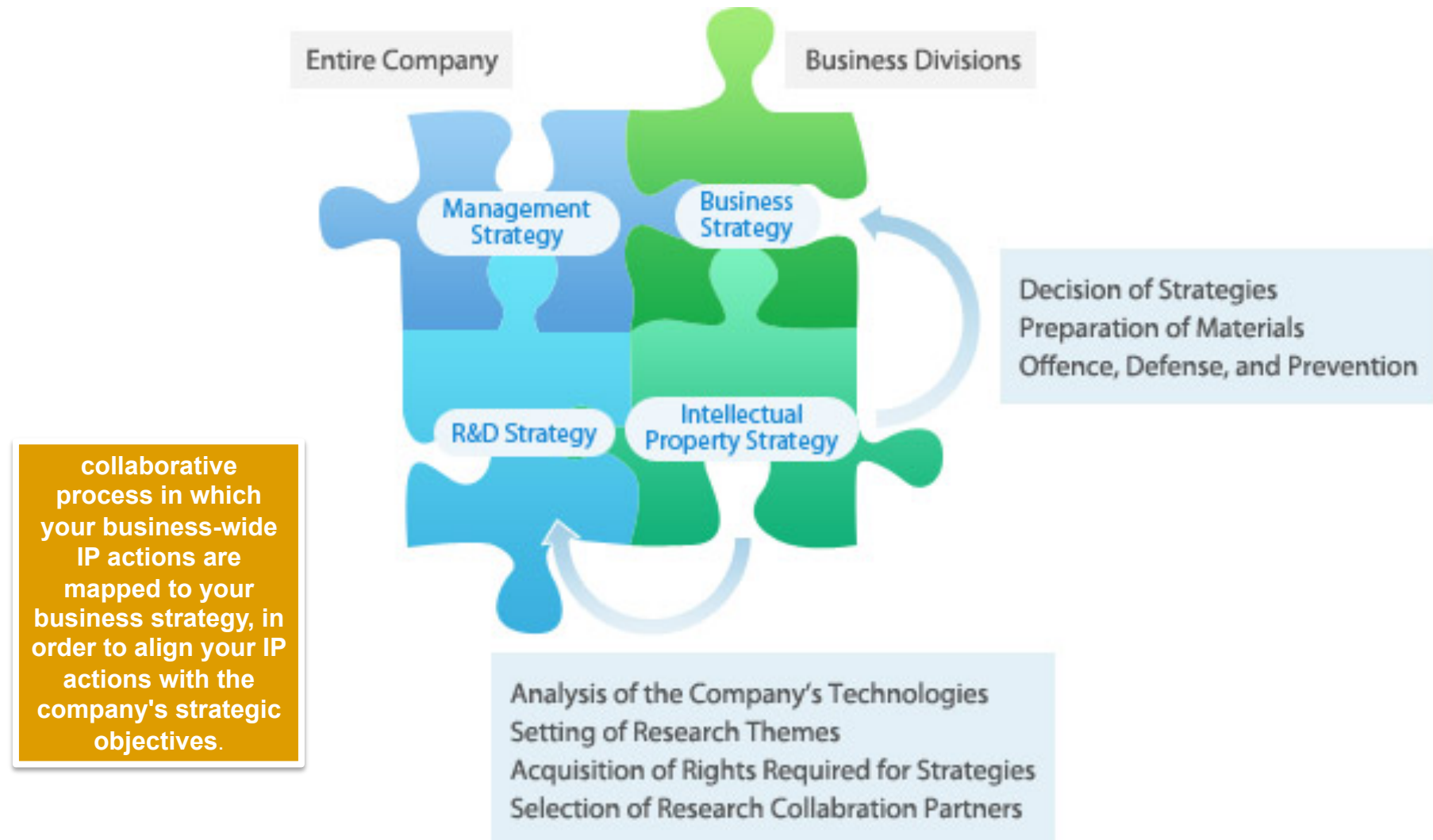
Strategic Patent Portfolio Development

Competitive Patent Assessment

Data Analytics

Summary

Business and Patent Portfolio Goals



Business and Patent Portfolio Goals Must Align

- How is my IP aligned to our products, revenue, and business organizations?
- How strong is our competitive position?
- Are there IP barriers to entry or our business expansion?
- Do we have appropriate performance measurements?
- How does our performance compare with competitors?
- Do we have freedom to operate as we expand our product offerings?
- Do we have an effective patent maintenance program and cost management process?
- Who might pay royalties to us for our patent rights?
- How can we screen incoming patent threats, reduce patent litigation risk and manage patent licensing inquiries?

Patent is an intellectual asset

A patent is a right granted by the government that allows a patent holder to exclude others from making, using, selling, offering to sell, or importing that which is claimed in the patent, for a limited period of time.

Patents provide

- potential leverage for obtaining cash
- technology
- desired collaborations through licensing.
- attract potential investors, collaborators, and acquiring companies.
- remove roadblocks set by third-party patents through cross-licensing.

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Business and Patent Portfolio Goals

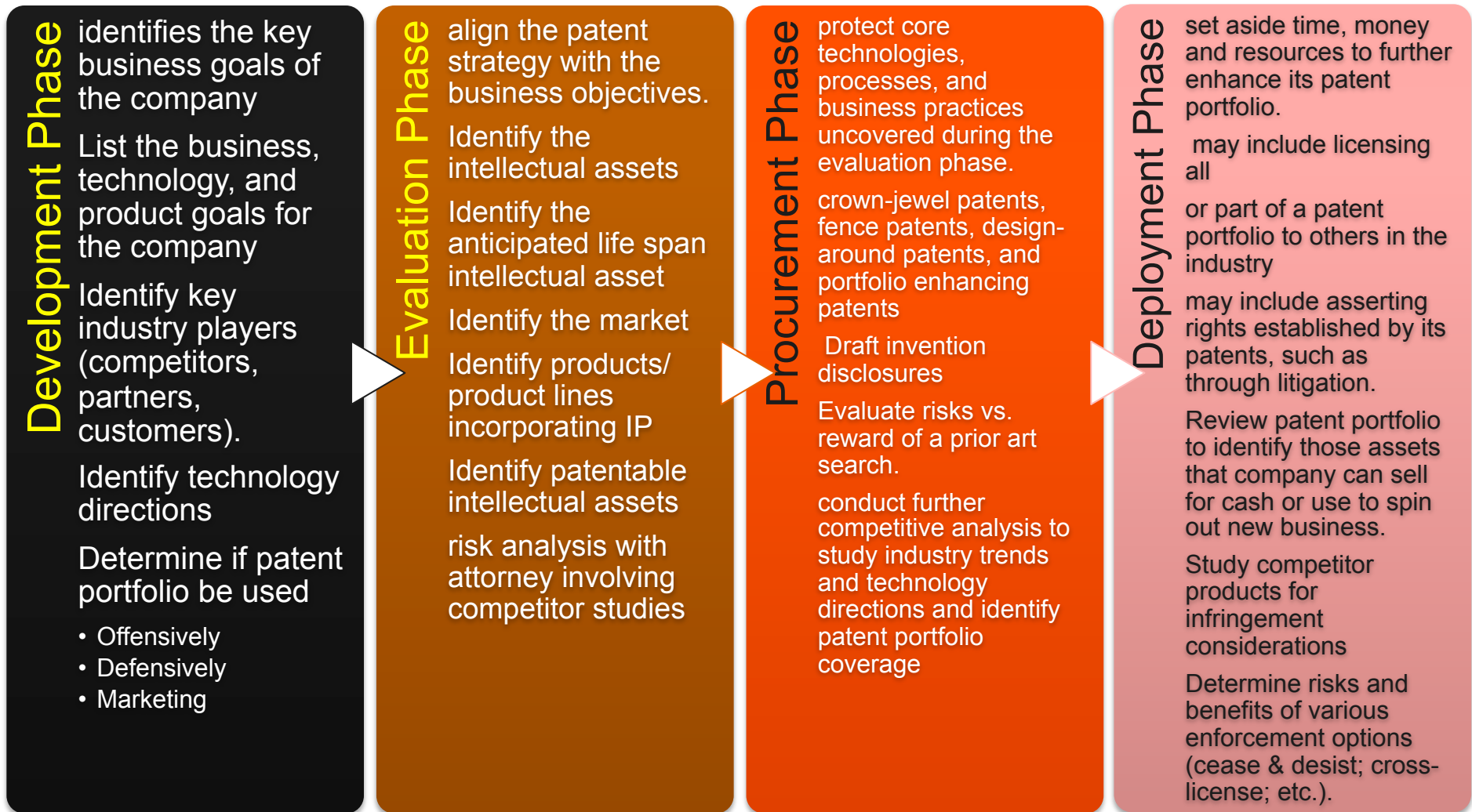
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Strategic Patent Portfolio Development



Development Phase : Patent Quality

- Scientific Quality
 - Peer Reviewed
 - Technological merit
- Legal Quality
 - Claims well drafted, thorough analysis of prior art and scientifically sound
- Strategic Quality
 - Patents are pursued or abandoned on business merits

Development Phase : Offensive Patent Development

Offensive Patenting is developed to impair a competitor's design freedom

- Disruptive Technology
- Used to leverage for Competitor's Technology Cross Licensing

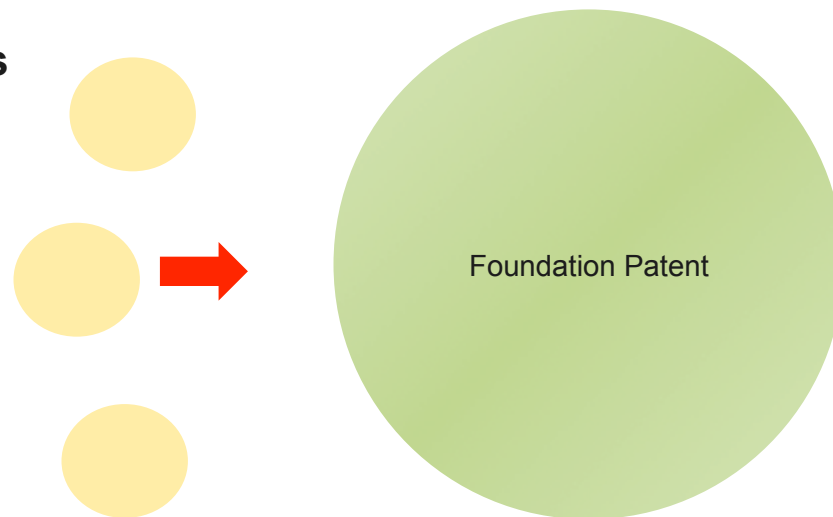
Small portfolio of pioneering patents

- Market leadership & advantage
- Licensing
- Deal & merger leverage

Small to medium size companies

Reasonable cost

Market monitoring



If you require the Foundation Patent – create a surrounding patent technology and force the competitor to cross license

Development Phase : Defensive Patent Development

Defensive Patenting is developed to impair a competitor's design freedom

- Design Freedom

Large portfolio of patents of various scope

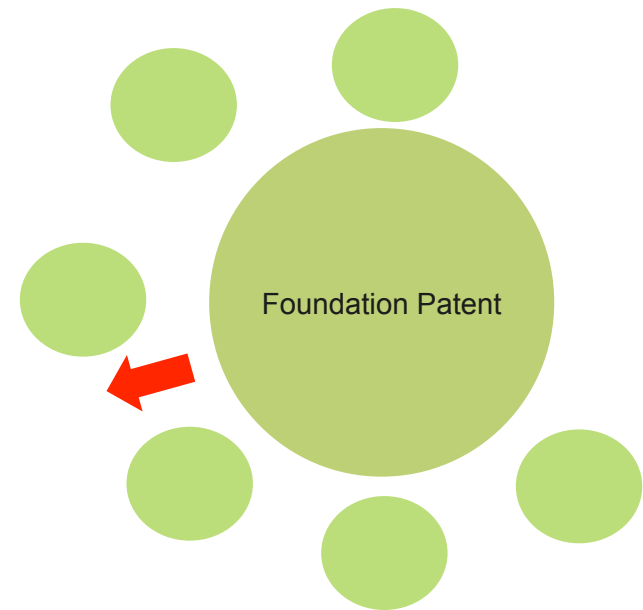
- Protect products from copying
- Cause competitor design around

Reduce risk of patent infringement suit by competitors - mutually assured destruction

Cross licensing - market entry

Medium to large size companies

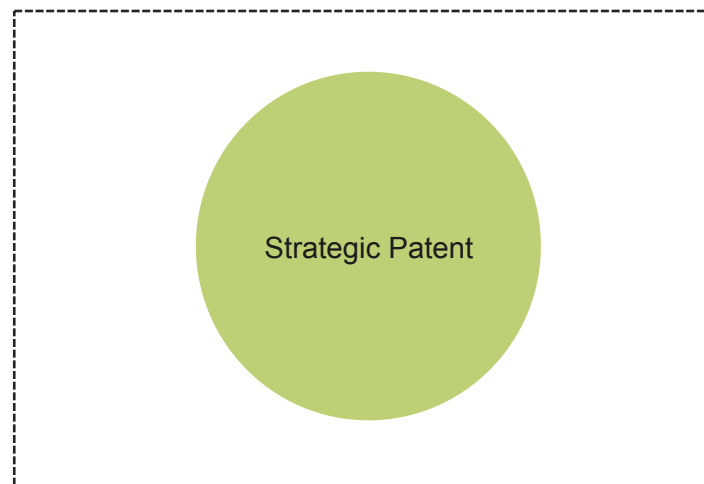
High cost



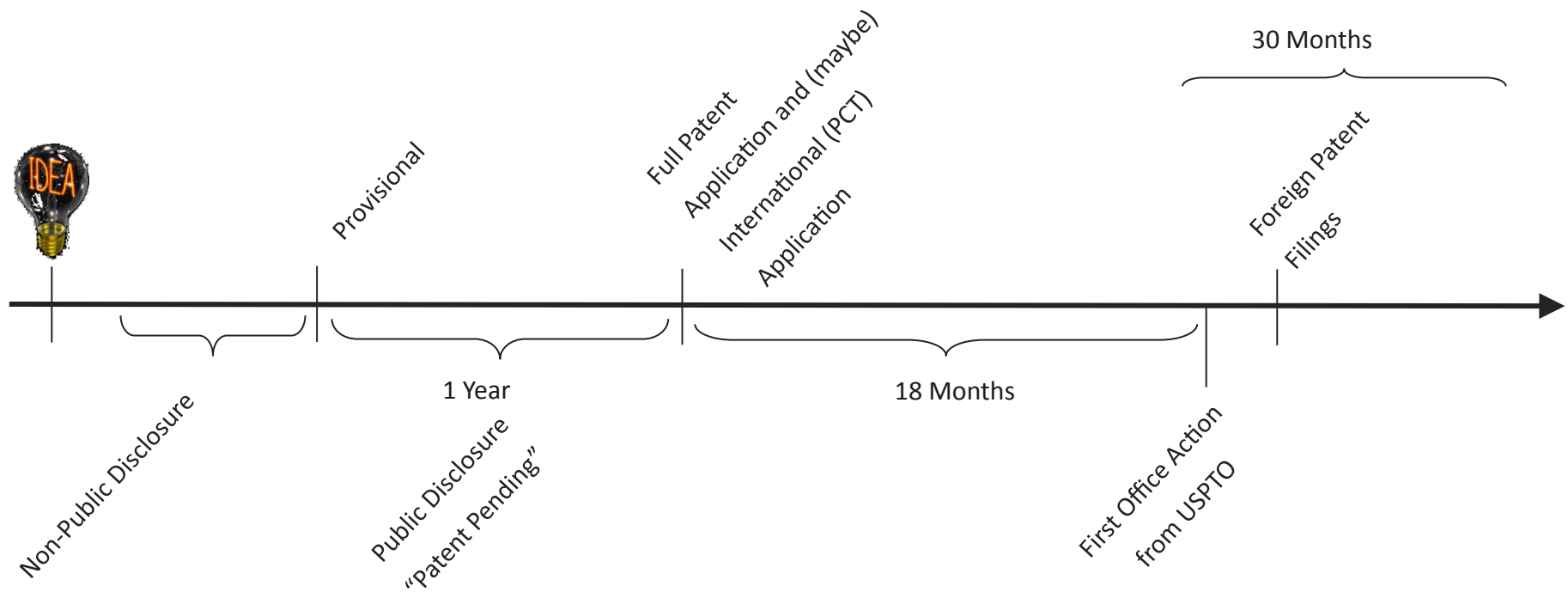
Procurement Phase Considerations: Patent Fence

Creating a Patent Fence to block in or around a strategic patent of interest

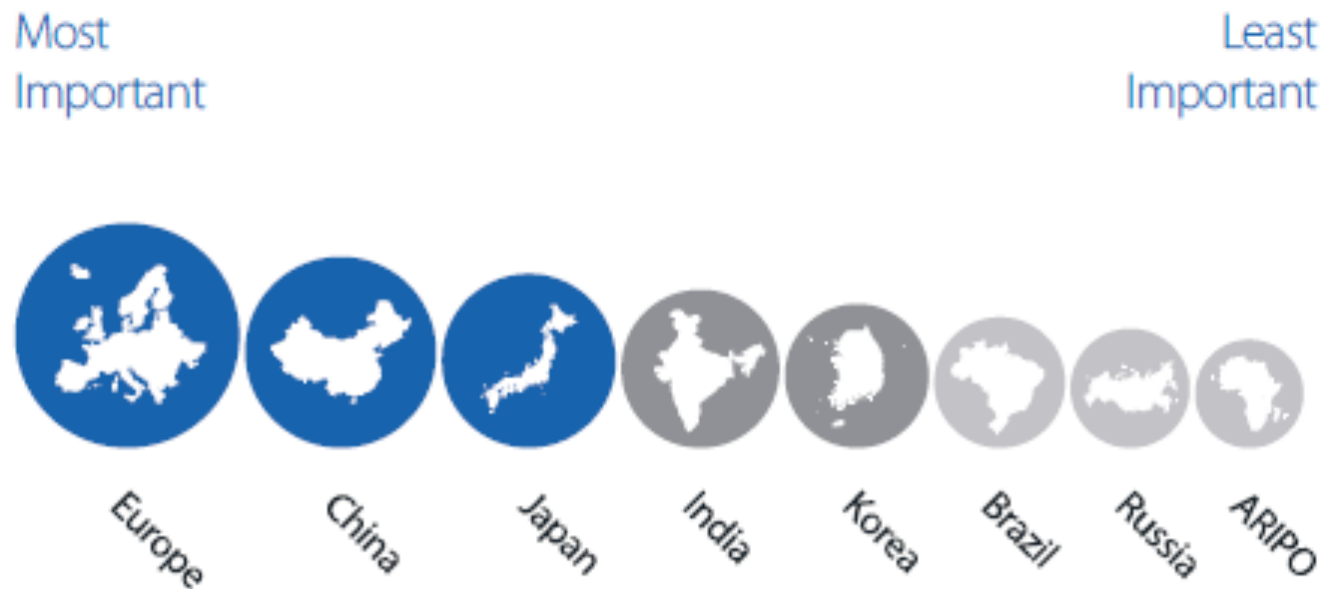
- Patents
- Trade Secrets
- Defensive Publications



Procurement Phase Considerations: Patent Timeline



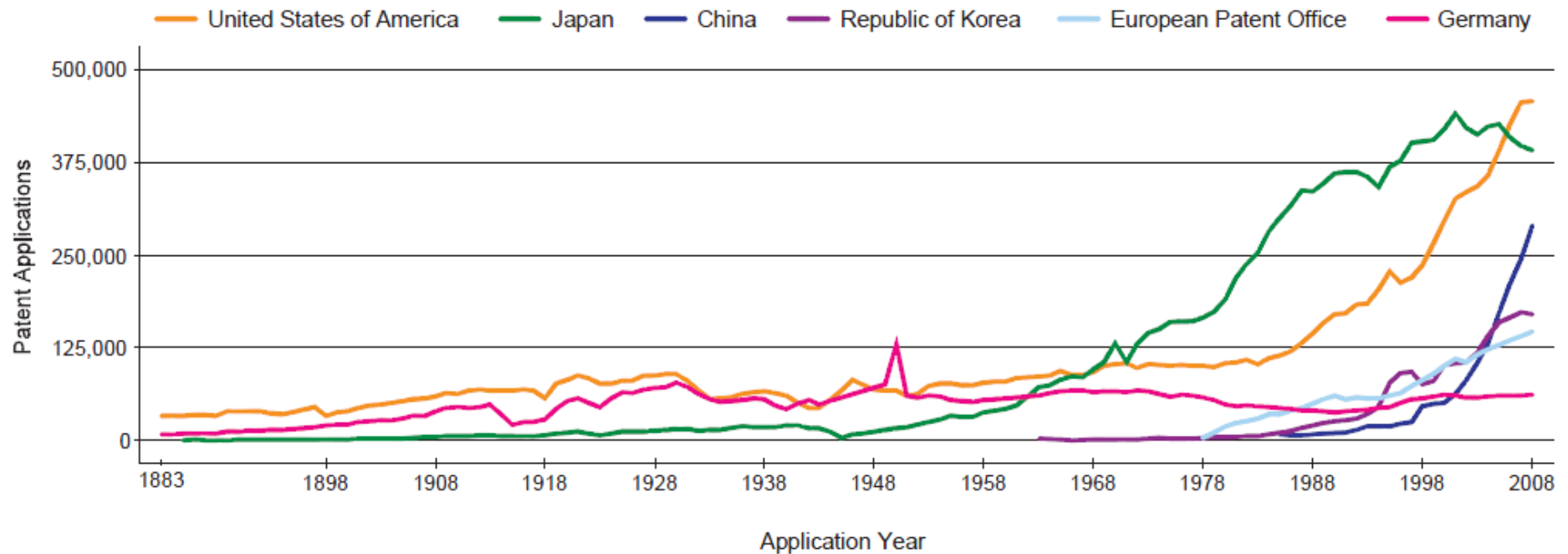
Procurement Phase Considerations: Foreign Patent Filings – U.S. Patentees



Note: Respondents were not asked to rank Canada, Australia, Mexico or others

Source: WIPO Statistics Database, June 2010

Procurement Phase Considerations: Trend in Patent Applications



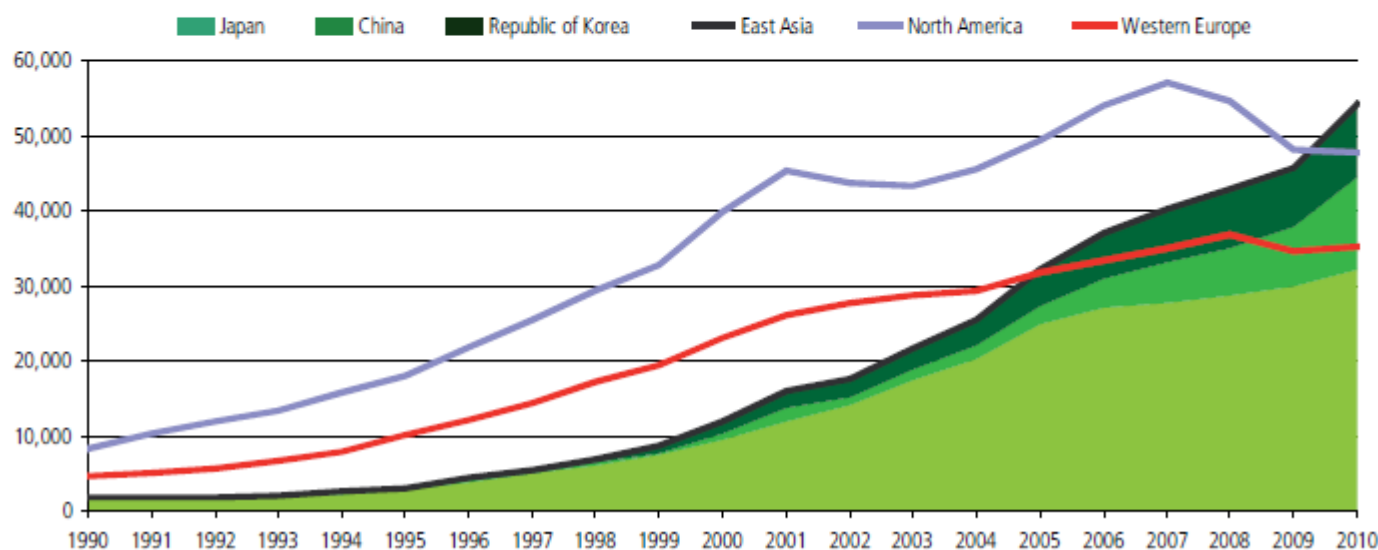
Source: WIPO Statistics Database, June 2010

Procurement Phase Considerations: Foreign Patent Filings - PCT

East Asia has become the main PCT filer

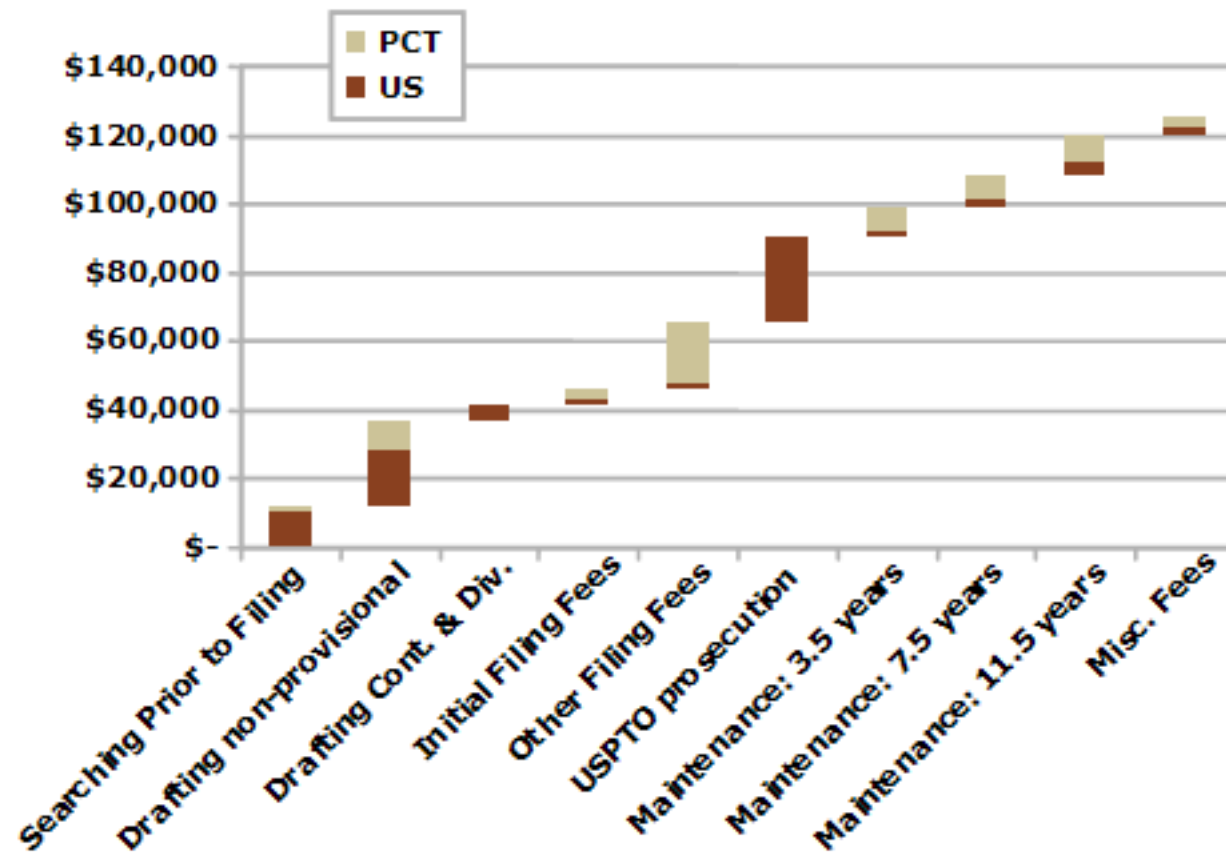
Until recently, the PCT system was mainly used by applicants from North America and Western Europe. In 2010, East Asia overtook them to become the subregion accounting for the most PCT filings (see figure 1). Indeed, since the economic recovery that followed the dot-com recession, the major East Asian filers – China, Japan and the Republic of Korea - experienced particularly rapid growth in applications. They continued to increase their filings even during and after the most recent economic downturn – unlike North America and Western Europe. From 2002 to 2010, the average annual growth rate of East Asia was 15.1%, compared to 1.1% for North America and 3.1% for Western Europe.

Figure 1: PCT filing trends



Source: WIPO Statistics Database

Procurement Phase Considerations: Foreign Filing Budget



Patent Strategy : Examples

IP portfolio audit

Idea: Ensure business alignment of a patent portfolio.

Process: Categorize the IP into 3 buckets: patents used currently in the business, patents that may support future direction, or patents of no business interest. A strengths assessment of those patents of "no business interest" can inform the decision to license/sell or abandon.

Example: Dow Chemical saved \$40M in the early 1990s by abandoning patents that the company evaluated as having no business use or licensing value.

Strategic foreign filings

Idea: Establish priority date while delaying individual country translation and filing fees.

Process: File an international patent application under the Patent Cooperation Treaty (PCT). The applicant has up to 30 months to evaluate market and technology factors before investing more in IP protection.

Example: Instead of paying for translations and application fees in many countries when the patent application is first filed, you can delay foreign filing costs by using the PCT filing approach. If, during the 30 month delay, the original business reason for filing the patent application ceases to exist, then the application can be abandoned before significant translation and filing costs have been incurred. This can save in the range of \$50,000 per patent. Similarly, if the preliminary patent search for the PCT application by the chosen authority (EPO, USPTO, etc.) finds relevant prior art, then the application can be abandoned without any more expense.

Patent Strategy : Examples

Defensive publications

Idea: Prevent competitive patents from issuing by creating prior art.

Process: Protect incremental improvements to already patented core technology by writing enabling descriptions and then disclosing these descriptions in the public domain, such as on IP.com's prior art database.

Example: While IBM's prolific patenting practice is well-known, fewer people recognize that IBM's IP strategy incorporates defensive publications, in the form of its Technical Disclosure Bulletin. These publications prevent competitors and customers from obtaining patents on-top-of IBM. This protection of Freedom to Operate is very valuable in allowing future design freedom for the R&D engineers.

Strategic portfolio development

Idea: Build IP portfolio strategically not ad hoc.

Process: Focus IP investments by filing on targeted R&D activities.

Example: This strategy prevents the opportunity cost of R&D staff inventing in areas that do not relate to the business strategy. A powerful innovative engine is created when the R&D staff is led by a business-aligned IP strategy. No IP investment is wasted on non-aligned patents.

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Competitive Intelligence in Patent Strategy

Look at known patents and research leaders

Analyze others use of those innovations

Assess activity trends and investment concentrations

Techniques to identify the core players, trends, and investment clusters within the technology landscape

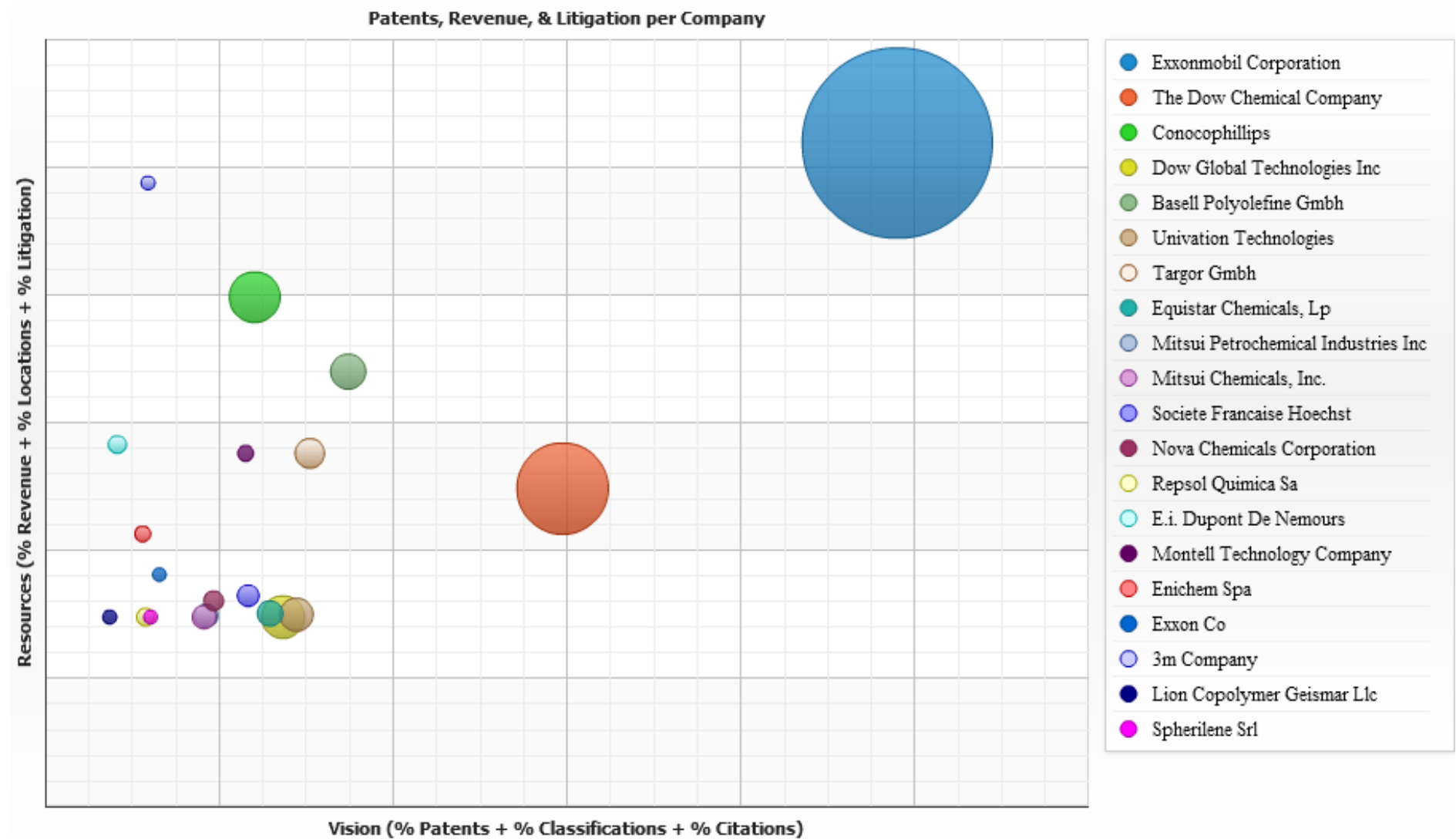
Patent-to-Product Mapping correlate existing and pending patent rights with products in the market, in the pipeline, and on the drawing-board. Correlate current income (from product commercialization, licensing, etc.) with patent rights, as well as the costs of maintaining the patent and the remaining patent term.

Whitespace Analysis review of patents belonging to particular industry, sector, or technology space. Assists companies to determine technology growth and gap areas within a particular industry where further research and development can be done to gain competitive edge, as well as to carry out incremental innovation for new product development.

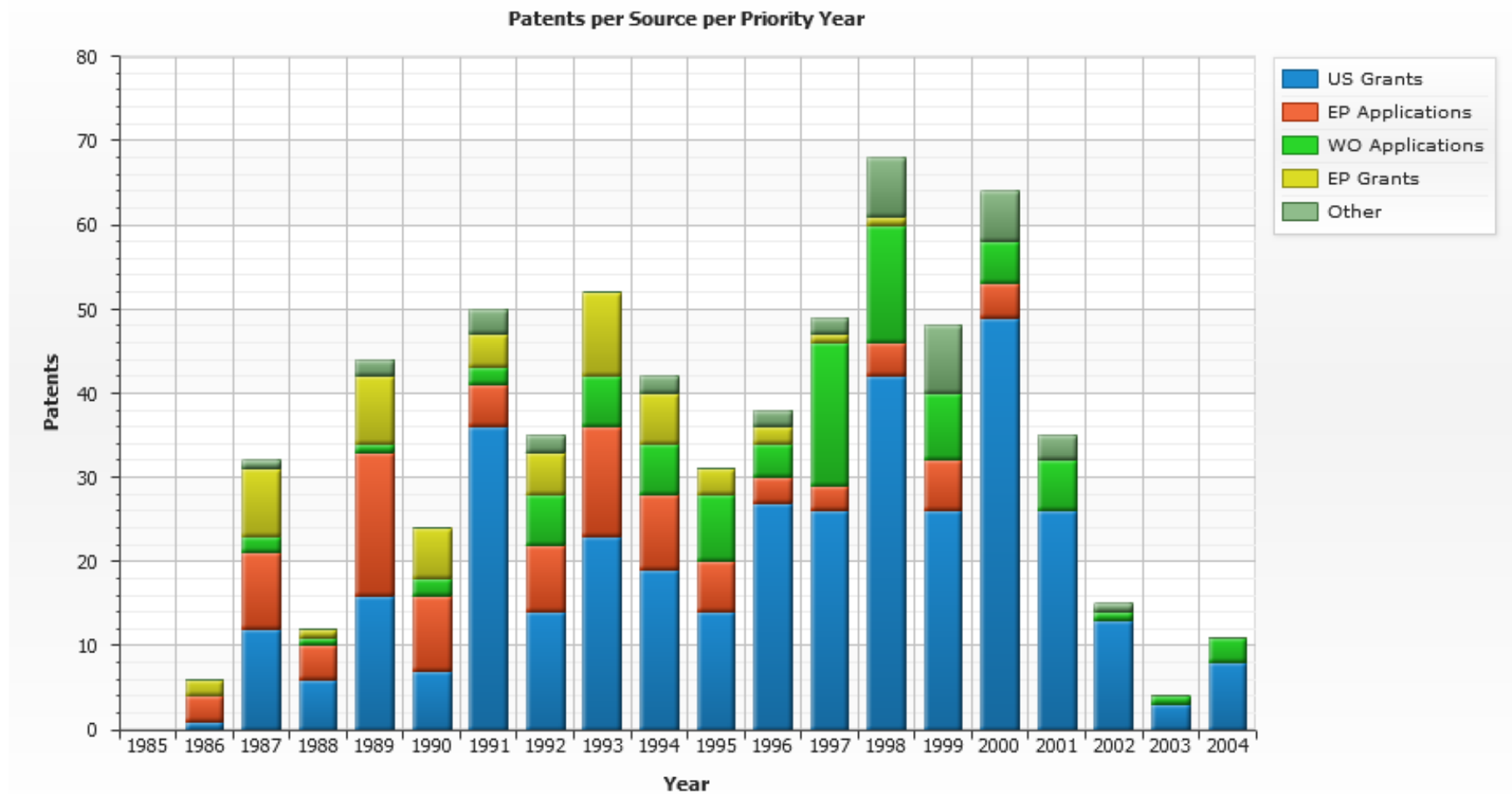
Patent Landscaping Provides a comprehensive view of where it stands amongst its competitors. Spreadsheets and databases may hold the raw patent data, but it's often the analysis and extrapolation of this data that drives key decisions. Our studies help clients make research and development investment decisions, as well as identify patent assets and/or competitors which may present licensing, purchase, or takeover opportunities.

Competitor Monitoring The way your competitors acquire, protect, and promote their intellectual assets can inadvertently signal their next moves. Using multiple channels of communication (media attention, events, news releases, social networking, etc.), we follow how competitors manage their intellectual assets to get a sense of what they are preparing to do next, in terms of market penetration and research and development efforts.

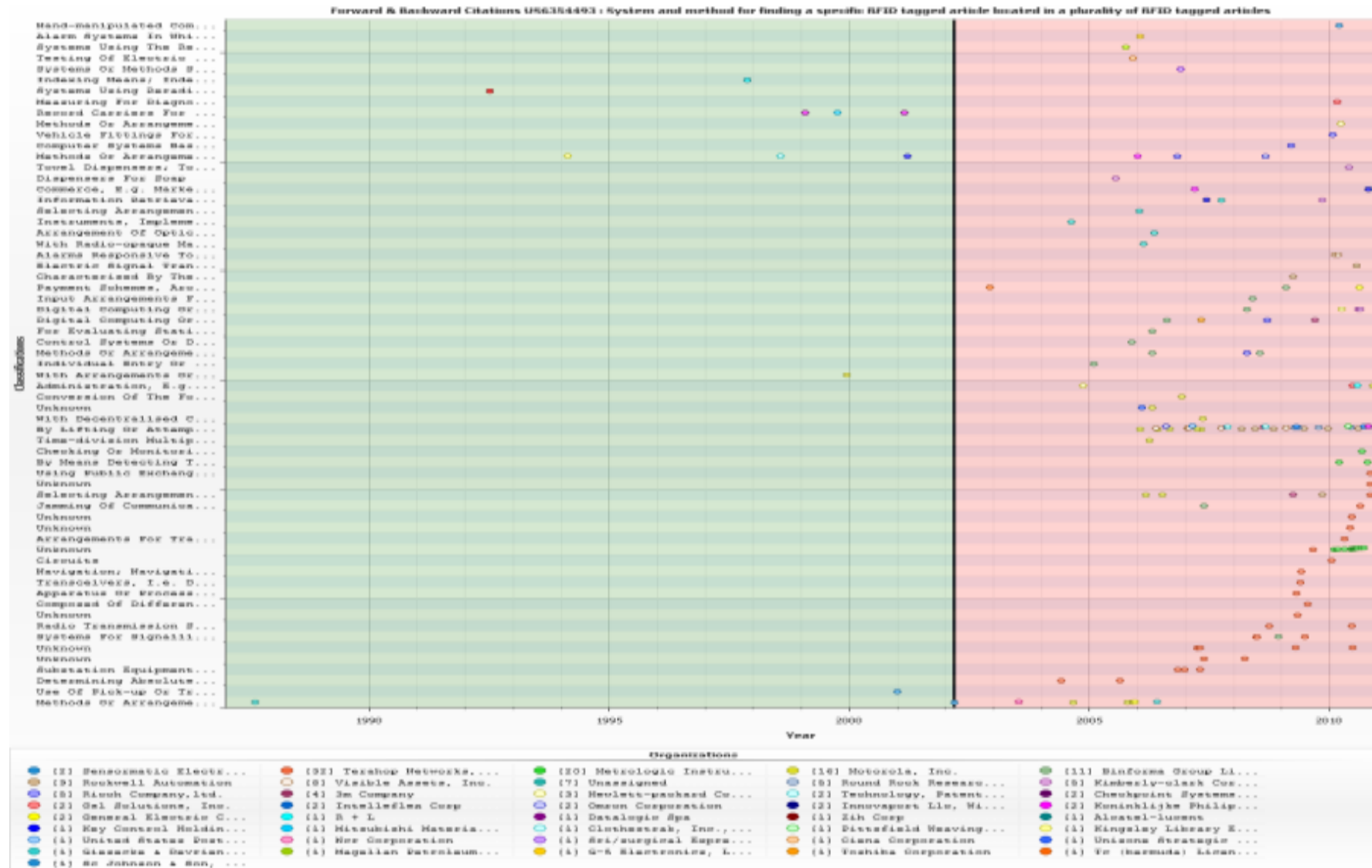
Assessing Competitors and Infringement Risks



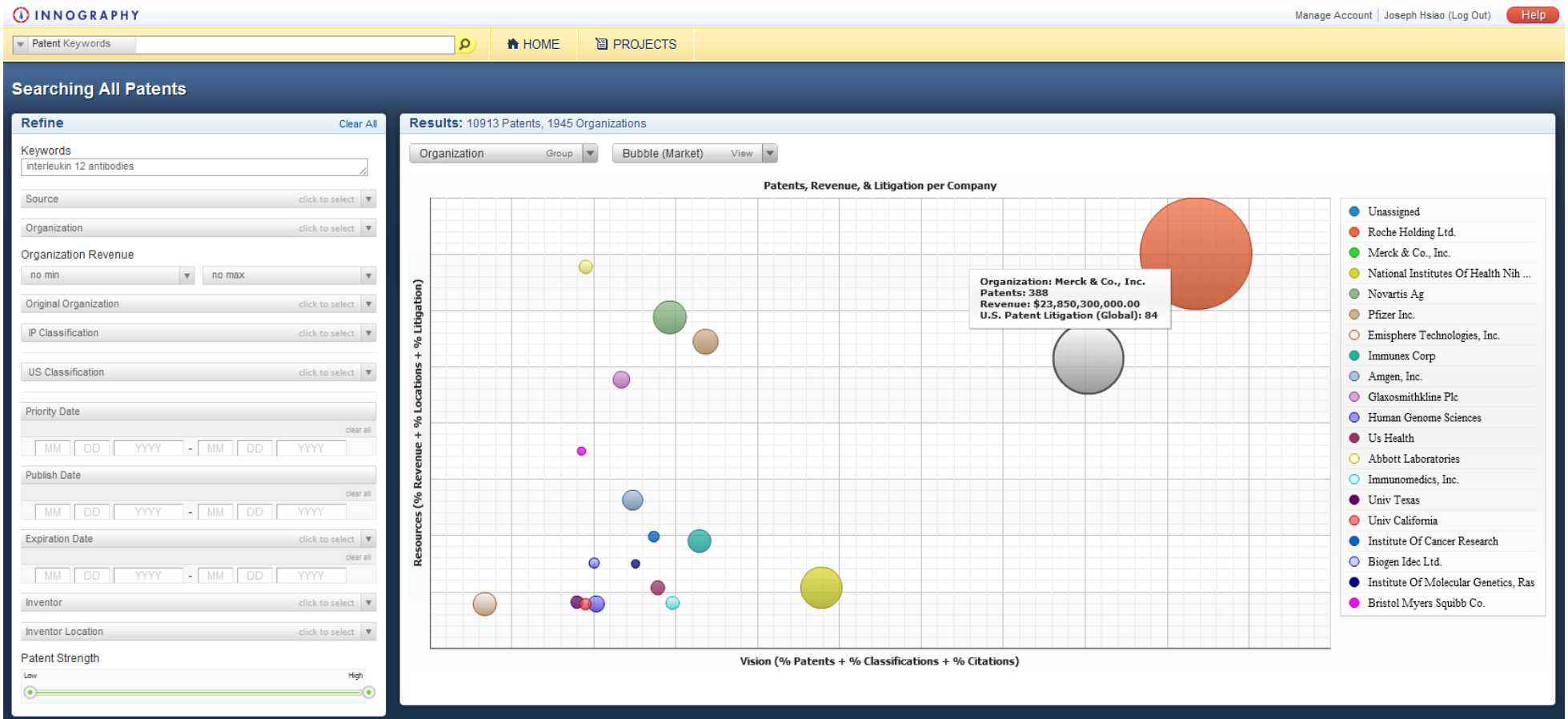
Competitor Trends in Geographic Patent Portfolio Development



Technology Development through Citation Analysis

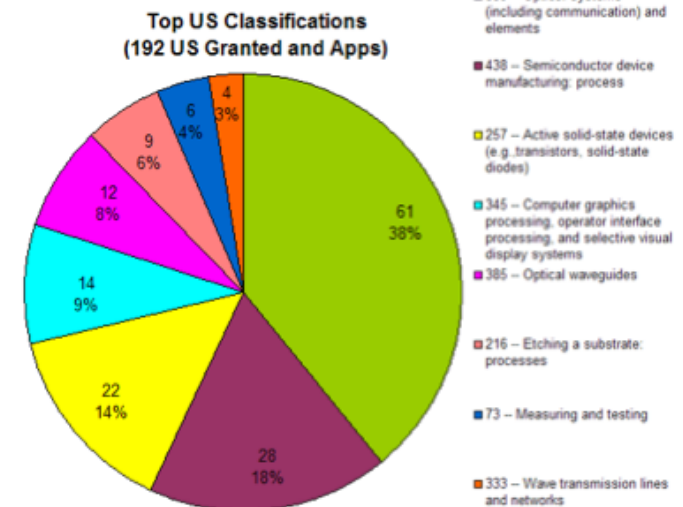
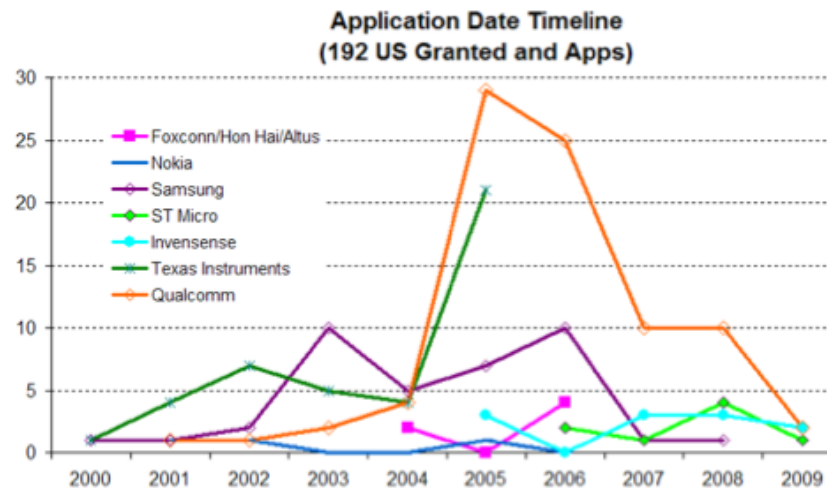
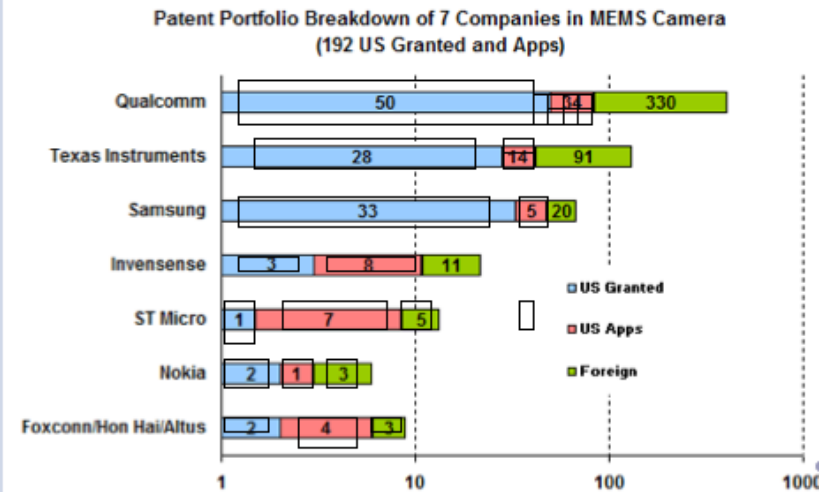


Analyze which Competitors are Investing Most Heavily in the Technology of Interest



Monitoring Competitors – Case Study MEMS

- **Qualcomm** – Largest portfolio, strongest Patent Family Strategy
- **Texas Instruments** – Best coverage of prior art, most seminal patents
- **Samsung** – Has 2nd most seminal patent, weak portfolio
- **Invensense** – Good portfolio strength, focused on MEMS gyroscope technology which can be applied to image stabilization
- **ST Micro** – Very few issued patents in this area
- **Nokia** – Image stabilization, few patents
- **Foxconn/Hon Hai/Altus** – 2 recent MEMS zoomable camera patents
- Additional patents reside in research labs, small players and some large industry players



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Databases

Free Patent Databases	Commercial Databases
EAST	PatBase
Google Patent	TotalPatent
USPTO	Thomson Innovation
EPO	Delphion
Freepatentsonline	Dialog
PatentScope	STN

Patent Analytics
Innography
Thomson Innovation
Patent Insight Pro
Vantage Point
PatentCafe

Patent Research to Inform your Strategy

	NOVELTY ASSESSMENT	FREEDOM TO OPERATE	INVALIDITY / VALIDITY	PATENT LANDSCAPE / COMPETITIVE INTELLIGENCE
PURPOSE	Research conducted to determine blocking, anticipatory and/or obvious art in the public domain	Identify potential infringement risks.	Attempt to invalidate or validate an issued patent reference with publicly available prior art before priority date	Assessment of specific competitors, technologies, inventors and other trend analysis
INSIGHTS	Assist in drafting alternative or more focused claims. Tool to aid or alter R & D. Identify blocking art.	Imperative for comprehensive due diligence. Enhance valuation and leverage in licensing negotiations	An affirmative defensive tactic. Assist in weighing assertion risks. As a validity tool can strengthen your patent value	Provides detailed information as to potential competitors product development strategy, aids in identifying potential licensing partners and may aid in valuation of your patent.
COSTS	\$750 - \$2000	\$1500 - \$5000	\$1500 - \$6000	\$5000 - \$25000

IP research at various stages of the innovation cycle

CONCEPTUALIZATION

- Novelty Search
- Technology Landscapes
- State-of-the-art Search
- Patent / Technology Watch

PROTECTION

- Patent Drafting
- Patent Filing

MANAGEMENT

- Landscape Analysis
- Portfolio Mapping & Analysis
- Overlap Analysis
- Invalidation Search
- Freedom-to-operate Study
- Claims Mapping
- Litigation Support

COMMERCIALIZATION

- Patent Valuation
- In-licensing Need Identification
- Out-licensing Opportunity Identification
- Licensing Partner Analysis

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Using the IP Value Hierarchy



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